

Procedure for obtaining Foreign Going Certificate of Competency under STCW'95 for world-wide operation on ships of less than 3000 GT for holders of Near Coastal Voyages Certificates of Competency limited to BIMMS Area under STCW'95. Obsolete (Included in TEAP part A and B)

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Dated: April 7,

Sub: Procedure for obtaining Foreign Going Certificate of Competency under STCW'95 for world-wide operation on ships of less than 3000 GT for holders of Near Coastal Voyages Certificates of Competency limited to BIMMS Area under STCW'95.

1. Purpose:

The purpose of this notice is to prescribe the procedure for holders of Certificates of Competency under Regulation II/1 or II/2 read alongwith Regulation I/3 of STCW'95 for near coastal voyages issued by Government of India and having an endorsement from Government of India to have been found duly qualified in accordance with the provisions of STCW'95 and have been found competent to perform the respective functions at the levels specified in the Certificate under the provisions of STCW'95 valid for ships plying in Bangladesh, India, Maldives, Myanmar and Sri Lanka (BIMMS) area, to obtain Certificates of Competency for worldwide operation subject to limitation to work on ships of less than 3000 GT only, at the operational level and at the management level.

In determining the Standards of Competence and the Course curriculum, examination, etc. due regard must be given to the fact these certificates are limited to ships of less than 3,000 Gross Tonnage.

2. Application:

These provisions are applicable only to the candidates holding Certificates of Competency under Regulation II/1 or II/2 read alongwith Regulation I/3 of STCW'95 for near coastal voyages issued by Government of India with an endorsement from the Government of India to have been found duly qualified in accordance with the provisions of STCW'95 with an endorsement to the effect under the STCW Convention as amended and have been found competent to perform the respective functions at the levels specified in the Certificate under the provisions of STCW'95 valid for ships plying in Bangladesh, India, Maldives, Myanmar and Sri Lanka (BIMMS) area, near coastal voyages certificate of competency who are desirous of obtaining a Certificate of Competency to work on ships of less than 3000 GT only operating worldwide.

3. This notice shall be read in conjunction with the appropriate provisions of following associated legislation / Merchant Shipping Notices / Circulars and STCW Convention as amended.
 - i. The Merchant Shipping Act, 1958
 - ii. The Merchant Shipping (STCW) Rules 1998

- iii. The Maritime Education Training and Assessment Manual Vol. I & II
- iv. Associated Merchant Shipping Notices and circulars
- v. Associated STCW Convention as amended

4. Categories of Certificate of Competencies:

Following certificates of competency shall be awarded under this scheme:

- i. Certificate of Competency as Second Mate of a foreign going ship (Officer in-charge of a Navigational Watch) at Operation Level under Regulation II/1 of STCW'95 with limitation to work on ships of less than 3000 GT only.
- ii. Certificate of Competency as First Mate of a foreign going ship (Chief Mate) at Management Level under Regulation II/2 of STCW'95 with limitation to work on ships of less than 3000 GT only.
- iii. Certificate of Competency as Master of a foreign going ship (Master) at Management Level under Regulation II/2 of STCW'95 with limitation to work on ships of less than 3000 GT only.

5. Procedure:

5.1 Award of Certificate of Competency as Second Mate of a foreign going ship (Officer in-charge of a Navigational Watch) at Operation Level under Regulation II/1 of STCW'95, with limitation to work on ships of less than 3000 GT only.

- i. Candidate should be in possession of Certificates of Competency under Regulation II/1 read alongwith Regulation I/3 of STCW'95 for near coastal voyages issued by Government of India and having an endorsement from Government of India to have been found duly qualified in accordance with the provisions of STCW'95 and have been found competent to perform the respective functions at the levels specified in the Certificate under the provisions of STCW'95 valid for ships plying in Bangladesh, India, Maldives, Myanmar and Sri Lanka (BIMMS) area, as Navigational Watch-keeping Officer (NCV) and should have completed at least 18 months of approved qualifying sea-going service as a Navigational Watch Keeping officer for near coastal voyages in BIMMS area.
- ii. Undergo an approved course of one-month duration on the subject of worldwide operation for ships of less than 3000 GT at operational level.
- iii. Undergo an approved training course on Automatic Radar Plotting Aids (ARPA) as per Annexure III, if not already done.
- iv. Appear and pass the written and oral examination in the subject stated in para 5.1.2 above.

Note: The syllabus of the written and oral examination is as per the Annexure I.

5.2 Award of Certificate of Competency as First Mate of a foreign going ship (Chief Mate) at Management

Level under Regulation II/2 of STCW'95 with limitation to work on ships of less than 3000 GT only.

- i. Candidate should be in possession of Certificates of Competency under Regulation II/2 read alongwith Regulation I/3 of STCW'95 for near coastal voyages issued by Government of India and having an endorsement from Government of India to have been found duly qualified in accordance with the provisions of STCW'95 and have been found competent to perform the respective functions at the levels specified in the Certificate under the provisions of STCW'95 valid for ships plying in Bangladesh, India, Maldives, Myanmar and Sri Lanka (BIMMS) area, as Mate of a Home Trade Ship (Chief Mate) and has completed at least 18 months of approved qualifying sea-going service after obtaining the Certificate of Competency as Mate of a Home Trade ship for near coastal voyages in BIMMS area.
- ii. Undergo an approved course of one-month duration on worldwide operation for ships of less than 3000 GT at management level.
- iii. Undergo an approved training course on Automatic Radar Plotting Aids (ARPA) as per Annexure III, if not already done.
- iv. Appear and pass the written and oral examination in the subject stated in para 5.2.2.

Note: The syllabus of the written and oral examination is as per the Annexure II.

5.3 Award of Certificate of Competency as Master of a foreign going ship (Master) at Management Level under Regulation II/2 of STCW'95 with limitation to work on ships of less than 3000 GT only.

1. Candidate should be in possession of Certificates of Competency under Regulation II/2 read alongwith Regulation I/3 of STCW'95 for near coastal voyages issued by Government of India and having an endorsement from Government of India to have been found duly qualified in accordance with the provisions of STCW'95 and have been found competent to perform the respective functions at the levels specified in the Certificate under the provisions of STCW'95 valid for ships plying in Bangladesh, India, Maldives, Myanmar and Sri Lanka (BIMMS) area as Master of a Home Trade Ship and has completed at least 18 months of approved qualifying sea-going service after obtaining the certificate of competency as Master (NCV) for near coastal voyages in BIMMS area..
2. Undergo an approved course of one-month duration on worldwide operation for ships of less than 3000 GT at management level.
3. Undergo an approved training course on Automatic Radar Plotting Aids (ARPA) as per Annexure III, if not already done.
4. Appear and pass written and oral examination in the subject stated in para 5.3.2..

Note: The syllabus of the written and oral examination is as per the Annexure II.

6. Conduct of the Courses:

It is proposed to conduct the courses mentioned in Annexure I & II at LBS College of Advanced Maritime Studies & Research, Mumbai with effect from May 2006.

Fees:

The fee for the written and oral examination will be charged as follows:

a) For Second Mate F.G. with a limitation to work on ships of less than 3000 G.T.

- | | |
|----------------------------|-------|
| i) Written examination Rs. | 750/- |
| ii) Oral examination Rs. | 750/- |

b) For First Mate F.G. with a limitation to work on ships of less than 3000 G.T.

- | | |
|----------------------------|--------|
| i) Written examination Rs. | 1500/- |
| ii) Oral examination Rs. | 1500/- |

c) For Master (F.G.) with a limitation to work on ships of less than 3000 G.T.

- | | |
|----------------------------|--------|
| i) Written examination Rs. | 3000/- |
| ii) Oral examination Rs. | 3000/- |

8.A Flow diagram

describing the scheme is attached as [Annexure IV](#).

Sd/-

(Capt. J.S.Uppal)

Dy. Nautical Adviser to the Govt. of India

-cum-Sr. Dy. Director General of Shipping (T)

ANNEXURE - I

SYLLABUS FOR HOLDERS OF NWKO (NCV) TO OBTAIN THE CERTIFICATE OF COMPETENCY AS

SECOND MATE OF A FOREIGN GOING SHIP (LESS THAN 3,000 GT)

(OFFICER IN CHARGE OF NAVIGATIONAL WATCH ON SHIPS LESS THAN 3,000 GT)

SUBJECT: WORLDWIDE OPERATION ON SHIPS LESS THAN 3,000 GT AT OPERATIONAL LEVEL

DURATION: 1 MONTH

EXAMINATION:

DURATION: 3 HOURS

MAX. MARKS: 200

PASS

MARKS: 120

1. Plan and conduct a passage and determine position

1.1 Terrestrial and Coastal Navigation (10 Hours)

1.1.1 Definitions:; great circle, spherical triangle, compression, geographic mile, statute mile, kilometre.

1.1.2 Charts: Meridional parts, and Gnomonic charts.

1.1.3 Datums: Axis of rotation

1.1.4 Mercator Sailing: Mercator sailing.

1.2 Spherical Trigonometry: Properties of a spherical triangle. Polar triangles and applications of their properties. Solution of Spherical triangles by haversine formula, sine formula and Napier's Rules for right angled triangles and quadrantal triangles. (20 Hours)

1.3 Celestial Navigation (14 Hours)

1.3.1 Solar system: Celestial pole, perihelion and aphelion, Kepler's laws of planetary motion, solstices and equinoxes, SHA, twilights, earth-moon system, solar and lunar eclipses.

1.3.2 Celestial sphere and equinoctial system of co-ordinates: obliquity of ecliptic

1.3.3 Hour angle: Right ascension.

1.3.4 Daily motion and horizontal system of co-ordinates: vertical circle, elevated pole, depressed pole, PZX triangle, circumpolar bodies. Great Circle sailing.

1.3.5 Sextant and altitude corrections: Back angle observations.

1.3.6 Time and equation of time: Dynamical mean sun, precession and nutation, sidereal and civil years.

1.3.7 Latitude by meridian altitude: Circumpolar bodies.

1.4 Electronic Systems of Position Fixing (8 Hours)

Echo-sounders and Speed Measurement

1.4.1 Speed log: Doppler speed logs, Janus configuration.

Compass - Magnetic and gyro

1.4.2 The magnetism of the earth and the ship's deviation.

1.4.3 The gyro-compass and errors of gyro.

1.4.4 The automatic pilot: Adjustments of controls.

1.5 Meteorology (20 Hours)

The Meteorological Elements

1.5.1 Shipborne meteorological instruments

1.5.2 The atmosphere, its composition and physical properties: Tropopause, stratosphere, stratopause, mesosphere, mesopause, thermosphere, insolation.

1.5.3 Cloud and precipitation: Hail, snow, sleet.

1.5.4 Climatology: The wind and pressure systems over the oceans: Mean surface pressure and wind distribution, doldrums, inter-tropical convergence zones, westerlies, polar easterlies. Local winds and ocean currents in various regions of the world.

1.5.5 Weather Systems - Structure of depressions: Air mass, source region, warm front, cold front, depression, family of depressions. Anticyclones and other pressure systems: Anticyclone, ridge, col.

1.5.6 Weather Reports and Forecasting - Weather services for shipping: World Meteorological Organisation, weather information available to shipping, meteorological offices, facsimile machine. Weather forecasting: Interpretation of symbols and isobaric patterns on weather charts and facsimile charts.

2. Maintain a safe navigational watch (10 Hours)

Revision of Watch-keeping requirements

2.1 Watch-keeping Arrangements and Procedures

2.2 Thorough knowledge of effective bridge team work procedures

2.3 The use of routing in accordance with the General Provisions on Ship's Routing

3. Revision of response to emergencies (8 Hours)

3.1 Contingency Planning

3.2 Measures which should be taken in emergencies for the protection and safety of the ship, passengers and crew

3.3 3. Respond to a distress signal at sea

4. Use the standard marine navigational vocabulary as replaced by the IMO standard marine communication phrases & use English in written & oral form. (10 Hours)

5. Revision of manoeuvring of ships and importance of understanding their manoeuvring characteristics and data. (6 Hours)

6. Revision of requirements for: (6 Hours)

6.1 Dangerous, Hazardous and Harmful (Marine Pollutants) Cargoes

6.2 Oil Tanker Piping and Pumping Arrangements:

6.3 Precautions before Entering Enclosed or Contaminated Spaces:

6.4 Stowage and Stability Calculations

7. Knowledge of the precaution to be taken to prevent pollution of the Marine environment (8 Hours)

7.1 Knowledge of anti-pollution procedures & all associated equipment -

7.2 Other countries legislation like OPA - 90

1. Monitor compliance with legislative requirements (6 Hours): Revision of Solas and Marpol requirements.

Note: The level of theoretical knowledge, understanding and proficiency required under this Annexure may be varied in accordance with the fact that these certificates of competency are valid for ships of less than 3,000 Gross Tonnage only.

ANNEXURE - II

SYLLABUS FOR HOLDERS OF MATE OF A HOME TRADE SHIP TO OBTAIN THE CERTIFICATE OF COMPETENCY AS

FIRST MATE OF A FOREIGN GOING SHIP (LESS THAN 3,000 GT)

(CHIEF MATE ON SHIPS LESS THAN 3,000 GT)

SUBJECT: WORLDWIDE OPERATION ON SHIPS LESS THAN 3,000 GT AT MANAGEMENT LEVEL

DURATION: 1 MONTH

(6 hours a day x 6 days a week) or (7 hours a day x 5 days a week)

EXAMINATION:

DURATION: 3 HOURS MAX. MARKS: 200 PASS MARKS: 120

1: Plan a voyage and conduct navigation (6 hours)

1.1 Terrestrial and Coastal Navigation (10 Hours)

1.1.1 Definitions: great circle, spherical triangle, compression, geographic mile, statute mile, kilometre.

1.1.2 Charts: Meridional parts, and Gnomonic charts.

1.1.3 Datums: Axis of rotation.

1.1.4 Mercator Sailing: Mercator sailing.

1.2 Spherical Trigonometry: Properties of a spherical triangle. Polar triangles and applications of their properties. Solution of Spherical triangles by haversine formula, sine formula and Napier's Rules for right angled triangles and quadrantal triangles. (20 Hours)

1.1 Voyage Planning and Navigation for all Conditions

1.1.1 Coastal Navigation: Planning navigation and plotting courses taking into account restricted waters, meteorological conditions, ice, restricted visibility, traffic separation schemes and areas of extensive tidal effects. Determine positions in all conditions.

1.1.2 Ocean voyage: Ocean passages for the world, sailing directions, routeing charts, ability to choose best routes. Reporting procedures in accordance with guidelines and criteria for ship reporting systems.

2: Determine position and the accuracy of resultant position fix by any means

2.1 Position Determination (8 hours)

2.1.1 Terrestrial navigation: Ability to use appropriate charts, Mercator sailing, errors in position lines, notices to mariners and other publications.

2.1.2 Great-circle sailing: Initial & final course, distance, position of vertex, composite sailing.

1.2 Celestial Navigation (14 Hours)

1.2.1 Solar system: Celestial pole, perihelion and aphelion, Kepler's laws of planetary motion, solstices and equinoxes, SHA, twilights, earth-moon system, solar and lunar eclipses.

1.2.2 Celestial sphere and equinoctial system of co-ordinates: obliquity of ecliptic.

1.2.3 Hour angle: Right ascension.

1.2.4 Daily motion and horizontal system of co-ordinates: vertical circle, elevated pole, depressed pole, PZX triangle, circumpolar bodies. Great Circle sailing.

1.2.5 Sextant and altitude corrections: Back angle observations.

1.2.6 Time and equation of time: Dynamical mean sun, precession and nutation, sidereal, tropical, anomalistic and civil years.

1.2.7 Latitude by meridian altitude: Circumpolar bodies

2.1.3 Celestial navigation: Kepler's laws of motion, magnitude of stars, correction of altitudes, calculation of position line, position through which it passes by using sun, stars, moon, planet and using following methods- Meridian altitude, ex-meridian, long-by-chron, intercept and pole star.

2.2 Electronic Systems of Position Fixing (16 hours)

2.2.1 Decca Navigator system: Principle, operation & errors of Decca Navigator system.

2.2.2 Loran-C system: Principle, operation and errors of Loran-C system.

2.2.3 Global Positioning System: Principle, operation and main sources of errors in GPS, Principle and accuracy of differential GPS.

2.2.4 Integrated navigation systems: Concept and system of partial and total integration

2.2.5 Radial steering, parallel indexing, and radar plotting

2.2.6 Electronic chart display information systems (ECDIS)

2.2.7 Echo sounders, speed logs : Sources of errors, Voyage data recorders and Automatic Identification System.

3: Determine and allow for compass errors (12 hours)

3.1 Magnetic Compass Error and Correction: Methods of obtaining table of deviation, compass correction, Heeling error of the compass, ability to determine and allow the errors of the magnetic compass, knowledge of the principle of magnetic compass.

3.2 Gyro-compass Errors and Corrections: Principle of gyro compass as north seeking instrument, errors of gyro compass, understanding of systems under the control of the master gyro, standards for gyro compasses, method of gyro error determination and allowing same, operation and care of main types of gyro compass.

4: Co-ordinate search and rescue operations (4hours)

4.1 Demonstrates thorough knowledge of and ability to apply the procedures contained in the IMO Merchant Ship Search and Rescue Manual (MERSAR) as replaced by the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR)

5: Establish watchkeeping arrangement and procedures (4 hours)

5.1.1 Ensuring the adequacy of a navigational watch: Factors deciding the composition of the watch on the bridge, efficiency of the watch, effective bridge team work procedures.

5.1.2 Information which should be exchanged between the master and the pilot.

5.1.3 Ensuring the adequacy of an engineering watch: Communication between chief engineer and master, factors deciding the composition of watch.

5.1.4 Vessel Traffic Management System, Vessel Reporting System

6: Maintain safe navigation through the use of Radar and ARPA and modern navigation systems to assist command decision-making (2 hours)

7: Forecast weather and oceanographic conditions

7.1 Meteorology (10 hours)

7.1.1 The atmosphere: Diurnal variation of temperature, relative humidity, lapse rate, adiabatic changes, diurnal variation of pressure, geostrophic wind, gradient and cyclostrophic winds.

7.1.2 Climatology: General distribution of surface temperature, surface current, sea fog, pattern of clouds.

7.1.3 Revision of Tropical revolving storms: Knowledge of the characteristic of tropical revolving storms and various weather systems, avoidance of storm centres and the dangerous quadrants.

7.1.4 Weather forecasting: Cold and warm front, occlusion on a synoptic chart, codes on synoptic charts, isobars on the weather chart, analysis of synoptic chart, information received by weather fax, structure of weather bulletin & use of International code.

7.2 Oceanography (12 hours)

7.2.1 Ocean currents: Causes of ocean currents, characteristics of ocean currents, charting of the current and main currents in the world oceans.

7.2.2 Waves: Speed, length, period, height & significance of waves, difference between waves and swell.

7.2.3 Ice on the sea: Different types of ice, icebergs, limits of icebergs, accumulation of ice on ships.

7.3 Weather Routing: Information of current, wind and ice to select an optimum route, use of wave charts to select the best route, weather routing services available to shipping.

7.4 Calculation of tides for standard and secondary ports and use of harmonic constant method of tidal prediction

7.5 Use of all appropriate navigational publications on tides and currents: Routing charts, tide tables, current and tidal stream atlases

8: Respond to navigational emergencies (2 hours)

9: Manoeuvre and handle a ship in all conditions (6 hours)

9.1 Manoeuvring when Approaching a Pilot Vessel or Station, with due regard to Weather, Tide, Headreach and Stopping Distance: Preparation of passage plan, contact with the pilot, preparation for picking up the pilot, readiness of anchors for letting go, making a lee for the pilot boat, understanding of headreach and stopping distance of the vessel while picking up pilot.

9.2 Practical Measures to be Taken when Navigating in Ice or Conditions of Ice Accumulation on Board: Sources of information on ice condition, ice sterns, measures to be taken when navigating in or near ice, precautions in entering ice, ice accumulation on board.

9.3 The Use of, and Manoeuvring in, Traffic Separation Schemes

FUNCTION: CARGO HANDLING AND STOWAGE AT THE MANAGEMENT LEVEL

10: Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes (8 hours)

10.1 Dry Cargoes:

10.1.1 Container Carriers: Construction, types and marking of containers, Bay plans and stack weight, container lashing materials for securing containers.

10.1.2 Car Carriers, Live Stock Carriers, Reefer ships and Ro-Ro Ships: General outline, precautions when working cargo with these type of ships.

10.2 Cargo-handling Gear and Hatch Covers :

10.2.1 Maintenance of cargo gear: Inspection of cargo gear, maintenance of cargo gear, annealing of loose gear.

10.3 Keeping a Watch in Port

10.3.1 Arrangements necessary for appropriate and effective deck watches to be maintained for the purpose of safety under normal circumstances

11: Carriage of dangerous cargoes (6 hours)

11.1 Dangerous, Hazardous and Harmful Cargoes:

11.1.1 Dangerous goods in packages: SOLAS Ch. VII, IMDG code, dangerous cargo manifest, precautions when working with dangerous goods, port authority inspections before loading dangerous goods.

11.2 Methods and Safeguards when Fumigating Holds: Reasons for the control of pest, International health regulations, precautions when the vessel is fumigated.

11.3 Cargo Calculations:

11.3.1 Draft Survey and related Calculations.

FUNCTION: CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD AT THE MANAGEMENT LEVEL

12: Control trim, stability and stress (4 hours)

Surveys, certification & dry-docking: Frequency of classification society surveys, items to examine in dry dock, cleaning preparation and painting of the hull in dry dock. Surveys and certification including Harmonised Ship Surveys and Enhanced Surveys

12.1 Stability: (12 hours)

Recommendation on intact stability for passenger and cargo ships: Precautions against capsizing, recommended criteria for passenger and cargo ship, stability information, IMO wind criteria.

Flooding of compartments: Margin line, permeability of a space, floodable length, permissible length of compartment, factor of sub division, type A, type B ships.

Effect of flooding on transverse stability: Virtual loss of GM due to flooding, permeability of cargo, effect of bilging due to flooding of mid-ship compartments.

Effect of flooding on trim: Calculation of movement of centre of rotation, calculation of the reduction of MCTC, given the dimension of bilged space, calculates the draft in damaged condition.

13: Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea and protection of the marine environment. (20 hours)

13.1 Introduction to Maritime Law

13.2 Law of the Sea: Conventions on the law of the sea, Territorial sea and the contiguous zone, International straits, Exclusive economic zone and continental shelf, High seas, Protection and preservation of the marine environment.

13.3.1 Civil Liability convention (CLC) and Fund Convention.

13.3.2 Oil Pollution Preparedness, Response & Co-operation Convention (OPRC)

13.3.3 Precautions, which should be taken by the master to prevent operational pollution: Use of oil record book, IOPP certificate.

13.3.4 Precautions which should be taken by the master to prevent accidental pollution: Routine checking and maintenance of equipment, proper communication during oil operations

13.3.5 Reporting of incidents: need for prompt reporting, meaning of probability of discharge

13.4 Arrival Documents and Procedures as amended

13.4.1 International Health Regulations (IHR)

13.4.2 Convention on Facilitation of International Maritime Traffic, (FAL 1965)

13.4.3 Noting protests

13.5 Collision

13.5.1 International Convention for the Unification of Certain Rules of Law with respect to Collision between Vessels, and Relating to Penal Jurisdiction in Matters of Collision or other Incidents of Navigation

13.6 Assistance and Salvage

13.6.1 International Salvage Convention

13.6.2 Lloyd's Standard Form of Salvage Agreement (LOF)

13.7 Convention on Limitation of Liability for Maritime Claims

Classification Societies

13.8 Overview of all classification society rules

13.9 Cargo

13.9.1 International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (Hague-Visby Rules)

13.9.2 Charter-parties

13.10 General Average and Marine Insurance

13.10.1 The York-Antwerp Rules

13.10.2 Marine insurance

13.11 Certificates and Documents required to be Carried by International Conventions and Agreements

14: Maintain safety and security of the ships crew and passengers and the operational condition of life-saving, fire fighting and other safety systems (4 hours)

14. 1 Safety and Security of the ships crew and passengers: Safety committee, maintenance of safety equipment, care and maintenance of rope wires, code of safe working practises, dock safety regulation. Reporting of accidents.

15: Develop emergency & damage control plans & handle emergency situations (2 hours)

16: Organise and manage the crew (6 hours)

16.1 Personnel Management

16.1.1 Principles of controlling subordinates and maintaining good relationships: General principles to be followed for maintaining good relationship staff welfare.

16.1.2 Conditions of employment: Conditions for service & items detailed in the service contract

16.2 Organisation of Staff :

16.2.1 Organising for safety and emergencies: Appointment of safety officer and fire officer, preparation and display of muster list.

16.2.2 Organising for staff duties: Watchkeeping and security duties while at sea and in port. Rest Period requirements

16.3 Training on Board Ships

16.3.1 Training in ISM Code, STCW Convention and Port State Control

Note: The level of theoretical knowledge, understanding and proficiency required under this Annexure may be varied in accordance with the fact that these certificates of competency are valid for ships of less than 3,000 Gross Tonnage only.

ANNEXURE - III

ARPA SIMULATOR COURSE

COURSE OUTLINE

Duration: 5 days.

Subject Area	Hours	
	Lectures	Simulator
1. Review of Plotting Techniques	2.0	4.0
2. Principal ARPA Systems	0.5	
3. IMO Performance Standards for ARPA	0.5	
4. Acquisition of Targets	0.25	
5. Tracking Capabilities and Limitations	0.25	2.0
6. Processing Delays	0.5	
7. Setting Up and Maintaining Displays		1.0
8. Representation of Target Information		1.0
9. Errors of Interpretation		-

10. Errors in Displayed Data	1.5	1.0
11. System Operational Tests	0.5	1.0
12. Risks of Over-reliance on ARPA	1.0	-
13. Obtaining Information from ARPA Displays		16.0
14. Application of COLREG 1972		-
SUBTOTALS	7.0	26.0
TOTAL	33.0	